

Abstract of the Invention

A method for forming a FDSOI device with channel length less than 50 nm with good short channel control. The gate has a tapered polysilicon spacer and a dielectric spacer. A polysilicon gate feature is formed and dielectric sidewall spacers are formed thereon. The polysilicon gate feature is then etched to form tapered poly features separated by a gap. A gate dielectric is deposited at low temperature, then metal is deposited into the gap to form the metal gate.